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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,320	11/19/2001	Bruce T. Dalton	12003-218	7358

7590

10/29/2002

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EXAMINER

CARIASO, ALAN B

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 10/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/992,320

Applicant(s)

DALTON ET AL.

Examiner

Alan Cariaso

Art Unit

2875

-- Th MAILING DATE of this communication appears on th cover sh et with the correspondenc address --

Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8, 13-15 and 19 is/are rejected.
- 7) ☒ Claim(s) 5, 9-12 and 16-18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 8, the phrase "the first and second refractive indices are substantially unity" is indefinite as being misdescriptive. It is the material(s) in the first and second pockets which have indices of refraction less than the first refractive index (of the transparent volume 20), respectively designated in the claims as second and third refractive indices.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 6-8, 13-15 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by SAKAKIBARA et al (US 4,625,262).
6. SAKAKIBARA discloses an optically transparent volume (transparent resin 20-fig.4) inherently having a first refractive index; an optical entry point (21) on the surface

of the volume (20); an optical transit point (fig.6) defined within the optically transparent volume, a first pocket (44) being a 3-D object substantially encased by the volume (fig.6) an shaped to reflect a beam of light from the entry point (21); wherein the first pocket (44) is filled with air (in equilibrium with surrounding air) which inherently has a second refractive index of substantial unity; further comprising a second pocket (32,46,48) substantially encapsulated (figs.6,7) by the transparent volume (20) filled with air which inherently has a refractive index of substantially unity being less than the first index of refraction, wherein the second pocket is shaped to reflect a beam of light from the first pocket (44) toward an optical exit of the volume (16); wherein at least one pocket (46,56,58,60,51) is enclosed within the transparent member (20, figs.5-7).

7. As for the phrase in claim 13 "wherein the first cavity is adapted to redirect incident light shining through the substantially solid transparent body through a first predetermined angle" and the phrase in claim 15 "wherein the second cavity is adapted to redirect incident light shining from the first cavity through the substantially solid transparent body through a second predetermined angle", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Allowable Subject Matter

8. Claims 5, 9-12 and 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. HSU et al (US 5,436,805) shows enclosed notches (36a,36-fig.7) and enclosed gas bubbles (38-fig.8) positioned in light guides (10,30) that reflect light. HUTHER (US 3,609,960) shows a center recess or opening between two light-directing pockets (7). BAER et al (US 4,980,882; fig.3) and OSBORNE (US 5,107,107) show optics place about encoded wheels positioned in a recess. BOBEL et al (US 6,240,652) show an optical rotating transmitter disc directing light toward a line sensor to communicate its angular position. MAEGAWA et al (US 4,954,930), PERLO et al (US 5,884,995), ATKINS et al (US 5,934,782) and ONIKIRI et al (US 6,193,383) show various optical transparent bodies that include at least first and second pockets or cavities there within and the pockets/cavities deflect light from one pocket to the other.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Cariaso whose telephone number is (703) 308-1952. The examiner can normally be reached on M-F (9:00-5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703) 305-4939. The fax phone

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numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

A handwritten signature in black ink, appearing to read 'Alan Cariaso', with a long horizontal flourish extending to the right.

Alan Cariaso
Primary Examiner
Art Unit 2875

AC
October 25, 2002